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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/916,080

07/26/2001

Hechun Chen

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04/19/2006

DOUGHERTY CLEMENTS  
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CHARLOTTE, NC 28211

EXAMINER

PHAN, TRI H

ART UNIT

PAPER NUMBER

2616

DATE MAILED: 04/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/916,080

Applicant(s)

CHEN ET AL.

Examiner

Tri H. Phan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6,8,9,11-16,18 and 19 is/are rejected.
- 7) ☐ Claim(s) 7,10,17 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Response to Amendment/Arguments***

1. This Office Action is in response to the Response/Amendment filed on December 14<sup>th</sup>, 2005. Claims 1-20 are now pending in the application.

### ***Claim Objections***

2. Claim 11 is objected to because of the following informalities:

Claim 11 recites "A system ..., comprising a processor ... automatically map...; verify ...; obtain ...; automatically provision ... the network." It is unclear whether applicant intends for claim 11 to be directed toward a system claim or a method claim.

It should be further noted that the phrase "configured to:" is interpreted with the broadest interpretation as intended, e.g. 'not actually', to do functions such as automatically map ...; verify ...; obtain ...; automatically provision ...".

It is suggested applicant changes for clarity

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1-6, 8-9, 11-16 and 18-19 are rejected under 35 U.S.C. 102(b) as being anticipated by **Lu, Tsu-kai** (U.S.5,815,490; hereinafter refer as 'Lu').

- In regard to claims 1 and 11, **Lu** discloses, *a method and system for automatic topology provisioning of an optical network* (figure 1B; Abstract) *by a network management system* ('Operation support system OSS' in figure 1A-B), *comprising a processor* ('controller 104' in figures 10-11) *configured to automatically mapping a topology of network elements of the network based on network connection information* (for example see col. 6, lines 20-28; col. 8, lines 4-7; wherein the ring table, in figures 6-9A, is provided with provisioning information to each of network elements, e.g. "*mapping a topology of network elements*", as disclosed in col. 8, lines 15-20), *the network connection information describing interconnections of the network elements* (for example see figures 4C-D; wherein the node ID and sequence provide the ring topology as disclosed in col. 8, lines 54-65); *verifying that the network elements complete a ring formation* (for example see col. 6, lines 20-24); *obtaining protection information specifying a protection mechanism to be implemented on the network* (for example see col. 8, lines 25-35; wherein the ring status and ring type provide the information for protection mechanism such as Line/Path switching, UPSR, BLSR, e.g. "*protection information specifying a protection mechanism*", as disclosed in figure 4A-B; col. 2, lines 44-50); *and automatically provisioning at least one of time-division multiplexing group 'TDMG' and facility fault protection 'FFP' depending upon the protection mechanism to be implemented on the network* (for example see figures 2, 3A-B, 5; col. 8, lines 25-35; col. 14, lines 38-41; wherein the working 'W' paths and protection 'P' paths in the SDH ring are "*time-division multiplexing group 'TDMG' and facility*

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*fault protection 'FFP'"; and wherein the control program, as disclosed in col. 7, lines 49-51, provides the "automatically provisioning" as disclosed in col. 6, lines 34-42; with the minimum human involvement as disclosed in col. 6, lines 64-68).*

- Regarding claims 2 and 12, **Lu** further discloses, *wherein the protection mechanism is selected from the group consisting of bi-directional line switched ring 'BLSR' protection mechanism, unidirectional path switched ring 'UPSR' protection mechanism, 1:1 protection mechanism and 1+1 linear protection mechanism* (for example see col. 8, lines 25-25; wherein the ring status and ring type provide the information for protection mechanism as disclosed in col. 6, lines 34-42).

- In regard to claims 3 and 13, **Lu** further discloses, *wherein the protection mechanism is UPSR and the provisioning comprises TDMG provisioning* (for example see col. 9, lines 51-57; wherein the STM-1 and STM-4, e.g. "TDMG provisioning", are assigned for the UPSR ring).

- Regarding claim 4 and 14, **Lu** further discloses, *wherein the provisioning comprises FFP provisioning ('protection paths P') and the protection mechanism is at least one of 1+1 linear protection and 1:1 linear protection* (for example see figures 2, 3A-B; col. 2, lines 51-61).

- In regard to claims 5 and 15, **Lu** further discloses, *wherein the protection mechanism is BLSR and the provisioning comprises TDMG and FFP provisioning* (for example see figures

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3A-B, 5; col. 3, lines 19-36; col. 9, lines 10-25; wherein the working channels and protection channels, e.g. “*TDMG and FFP provisioning*”, are provide for BLSR ring).

- Regarding claims 6, 8, 16 and 18, **Lu** further discloses, *wherein the TDMG provisioning includes determining and provisioning a ring map for each network element of the network* (for example see figure 6; col. 9, lines 26—38; wherein the working channels, e.g. “*TDMG provisioning*”, are provided for each of channel groups in the ring provisional table, e.g. “*ring map*”, which stores in each node in the ring, see figure 5; col. 1, lines 13-17; col. 4, lines 39-41; col. 5, lines 6-18, e.g. “*wherein the ring map is stored by each network element*”).

- In regard to claims 9 and 19, **Lu** further discloses, *wherein the TDMG provisioning includes assigning an identification to each node to facilitate in determining the ring map for each network element* (‘node ID’; for example see figures 4D-E; col. 8, lines 55-67; wherein the node ID for each node stores in the ring table).

#### ***Response to Amendment/Arguments***

5. Applicant's arguments filed on December 14<sup>th</sup>, 2005 with respect to claims 1-2, 4-12 and 14-20 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Allowable Subject Matter***

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6. Claims 7, 10, 17, 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Linzy Richard J.** (U.S.6,718,384) and **Lu, Tsu-kai** (U.S.5,412,652) are all cited to show devices and methods for improving system and method for monitoring and managing the SONET network in telecommunication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (571) 272-3179.

**Any response to this action should be mailed to:**

**Commissioner of Patents and Trademarks**

Washington, D.C. 20231

**or faxed to:**

**(571) 273-8300**

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Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan  
April 16, 2006



CHI PHAM  
SUPERVISORY PATENT EXAMINER  
4/17/06